

The Informalities in the Disclosure

Pages 20-22 of the specification are objected to due to legibility problems. Specifically, the presence of trivalent oxygens, disappearance of an -O substituent in Scheme 4, and omission of text of Example 1 on page 22, are mentioned by the Examiner. Enclosed are replacement pages 20-22 which are believed to cure each of the aforementioned problems.

The Section 112, First Paragraph, Rejection

Claims 104-107 stand rejected under Section 112, first paragraph, on the basis of lack of written description and/or lack of enablement. While Applicants assert that the subject specification meets Section 112, first paragraph, requirements with respect to the subject matter of claims 104-107, they have, for purposes of clarifying the invention, replaced claims 104-107 with claims 110-113, rendering the rejection moot.

New claims 110-113 are adequately supported by the specification. Specifically, methods of synthesizing the compounds of claims 110-113 are found at page 15, line 11 to page 17, line 4. Methods of using the compounds are set forth at page 17, line 5 to page 18, line 2.

Closing Remarks

A Notice of Appeal was filed in the subject case on July 2, 2002. Submitted herewith is a Petition for Extension of Time for 2 months, Request for Continued Examination and a check for \$1,140. Also submitted herewith is an Information Disclosure Statement. It is believed that no other fees are due with this submission. If this is in error, please charge Deposit Account No. 19-5117.

Respectfully submitted,

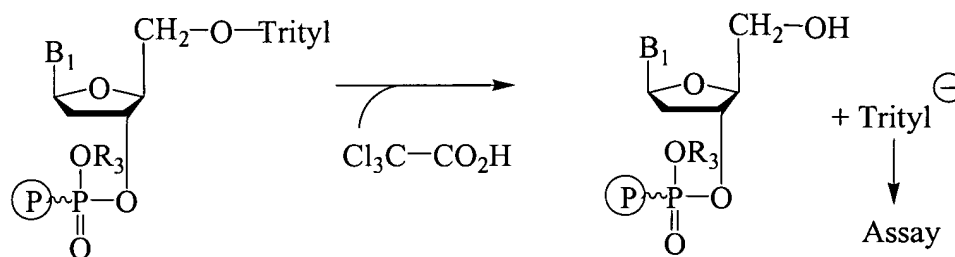
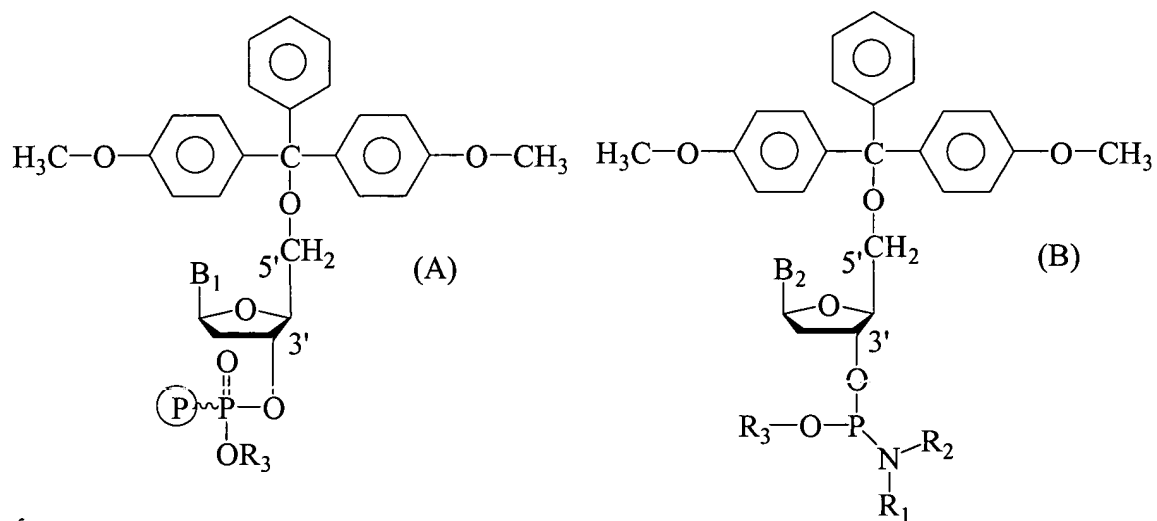


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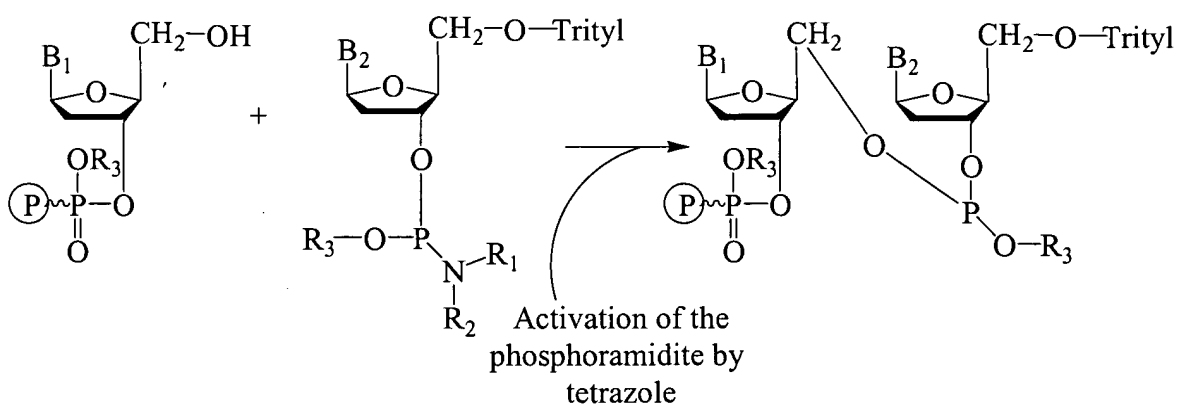
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cc: A. Wolter
B. Sauerbrei

Nucleoside attached to the support:

Phosphoramidite:



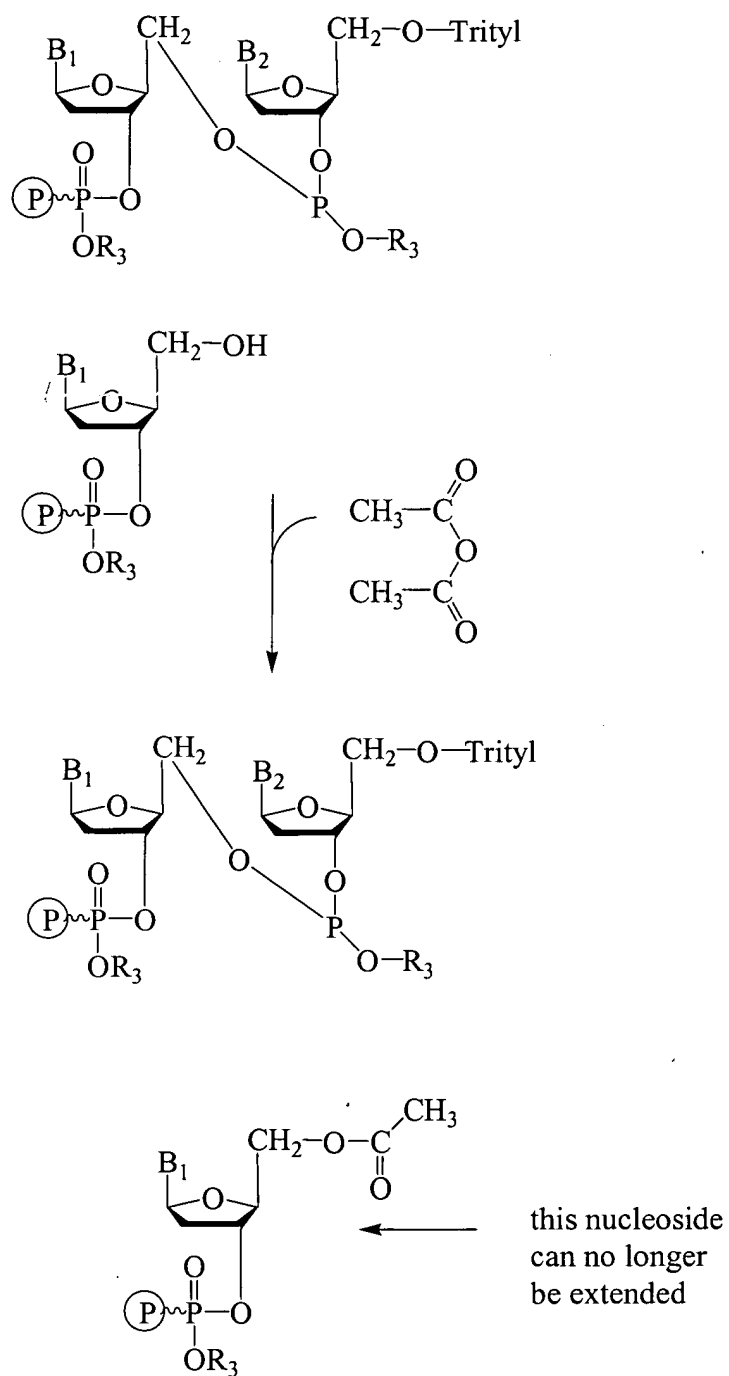
Scheme 1



Scheme 2



2) Capping:



Scheme 3



Chemical reaction scheme showing the conversion of a cyclic phosphate intermediate to a linear phosphate ester. The starting material consists of two sugar units, B₁ and B₂, linked by a cyclic phosphate group. B₁ is a ribose derivative with a phosphate group (P=O, OR₃) and a CH₂ group. B₂ is a ribose derivative with a CH₂-O-Trityl group and a phosphate group (P=O, OR₃). The reaction is catalyzed by I₂ and H₂O. The product is a linear phosphate ester where the cyclic phosphate has opened, resulting in a linear structure with a phosphate group (P=O, OR₃) and a CH₂ group on B₁, and a phosphate group (P=O, OR₃) and a CH₂-O-Trityl group on B₂.

EXAMPLE 1

$$[(\text{Me-O})_3 - \text{Si} - (\text{CH}_2)_3 - \text{O} - \text{CH}_2 - \overset{\text{O}}{\underset{\text{O}}{\text{C}}} - \text{CH} - \text{CH}_2]$$

The number of oxy groups is determined, after opening of the epoxide ring, by means of the reaction of dimethoxytrityl chloride in pyridine followed by absorption spectrophotometric measurement of the trityl cation in a mixture of perchloric acid and ethanol at 495 nm. A capacity of 50-100 micromol per 1 g of support is obtained.